

8 / 8

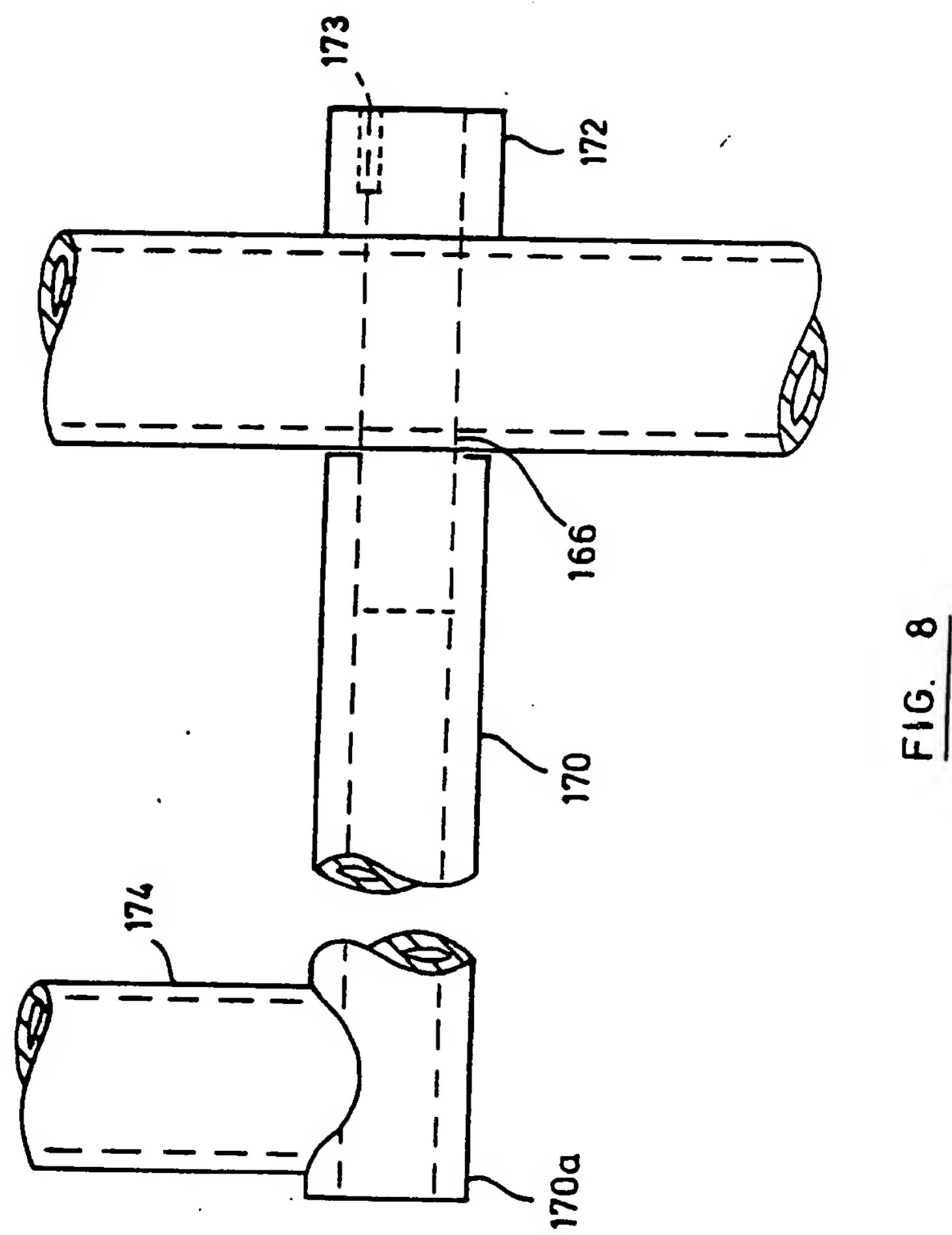


FIG. 8

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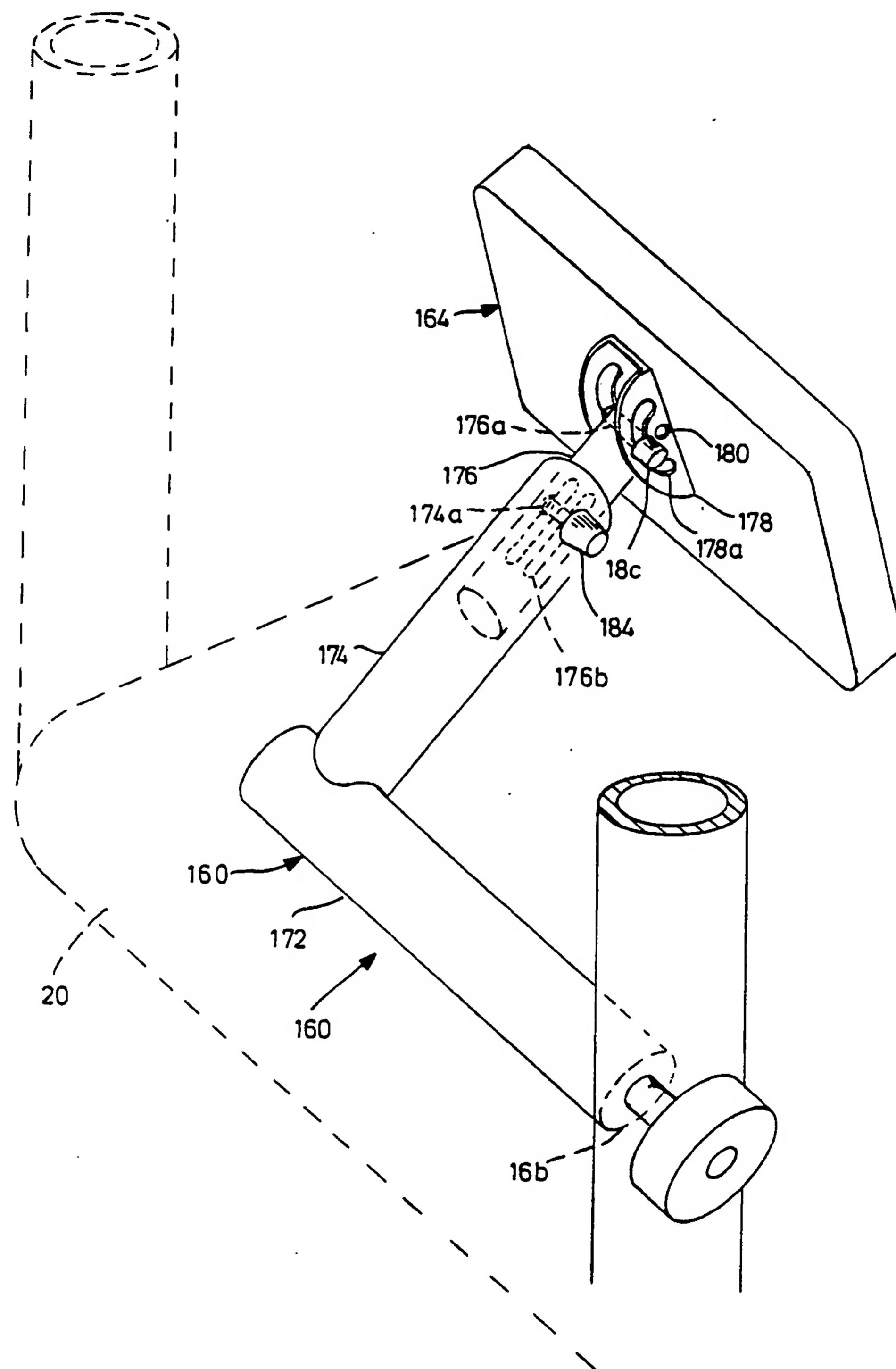


FIG. 7

SUBSTITUTE SHEET

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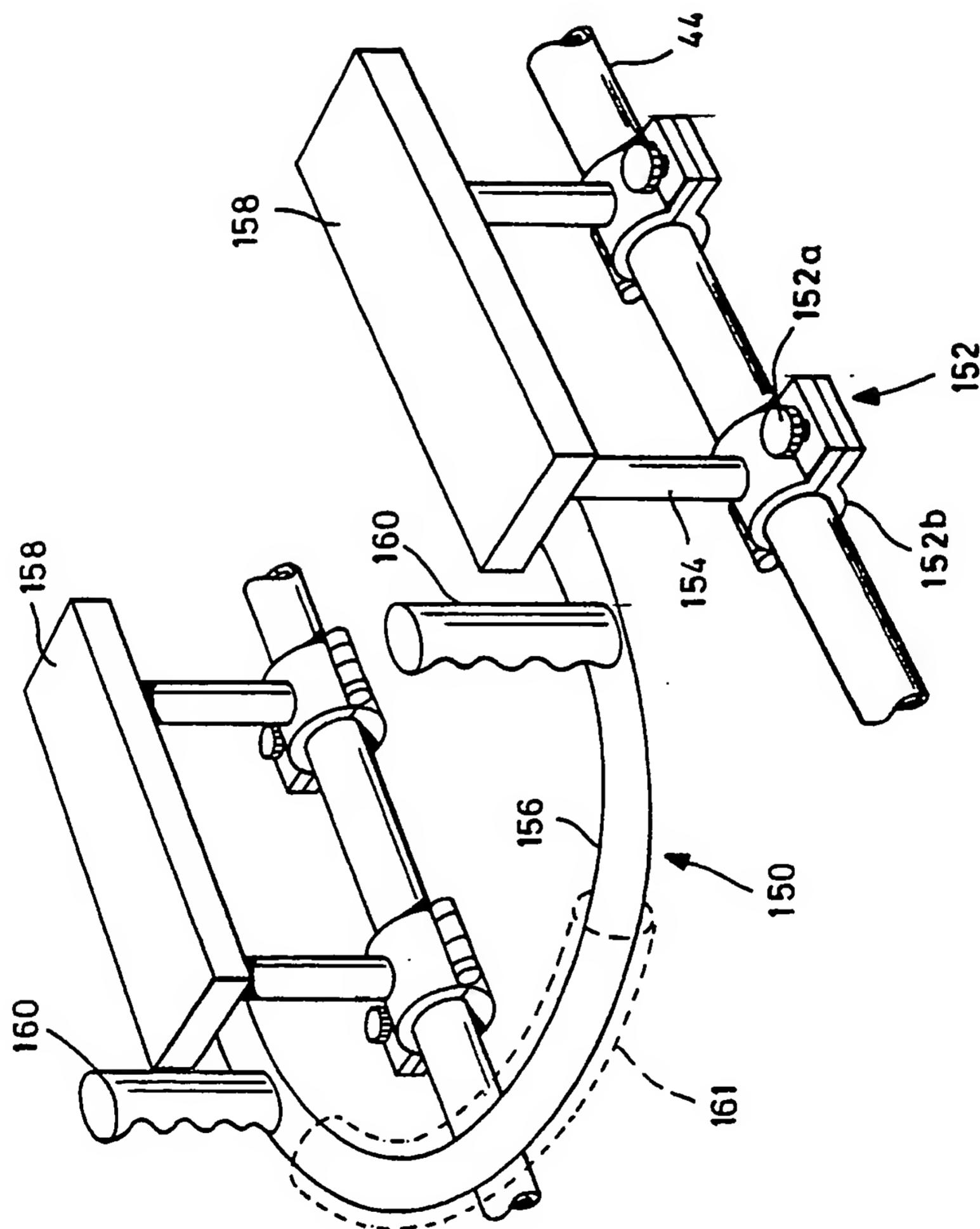


FIG. 6

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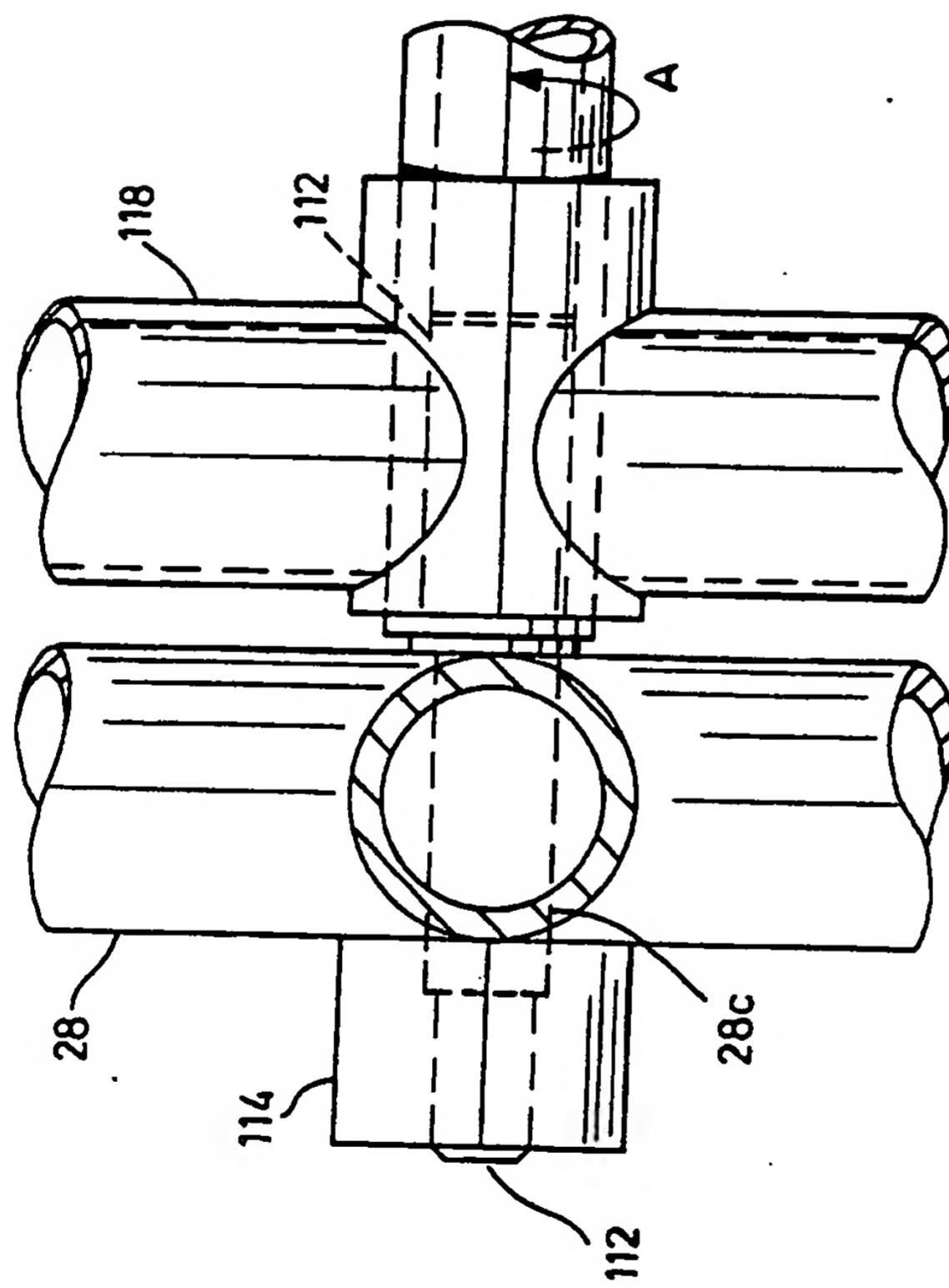


FIG. 5

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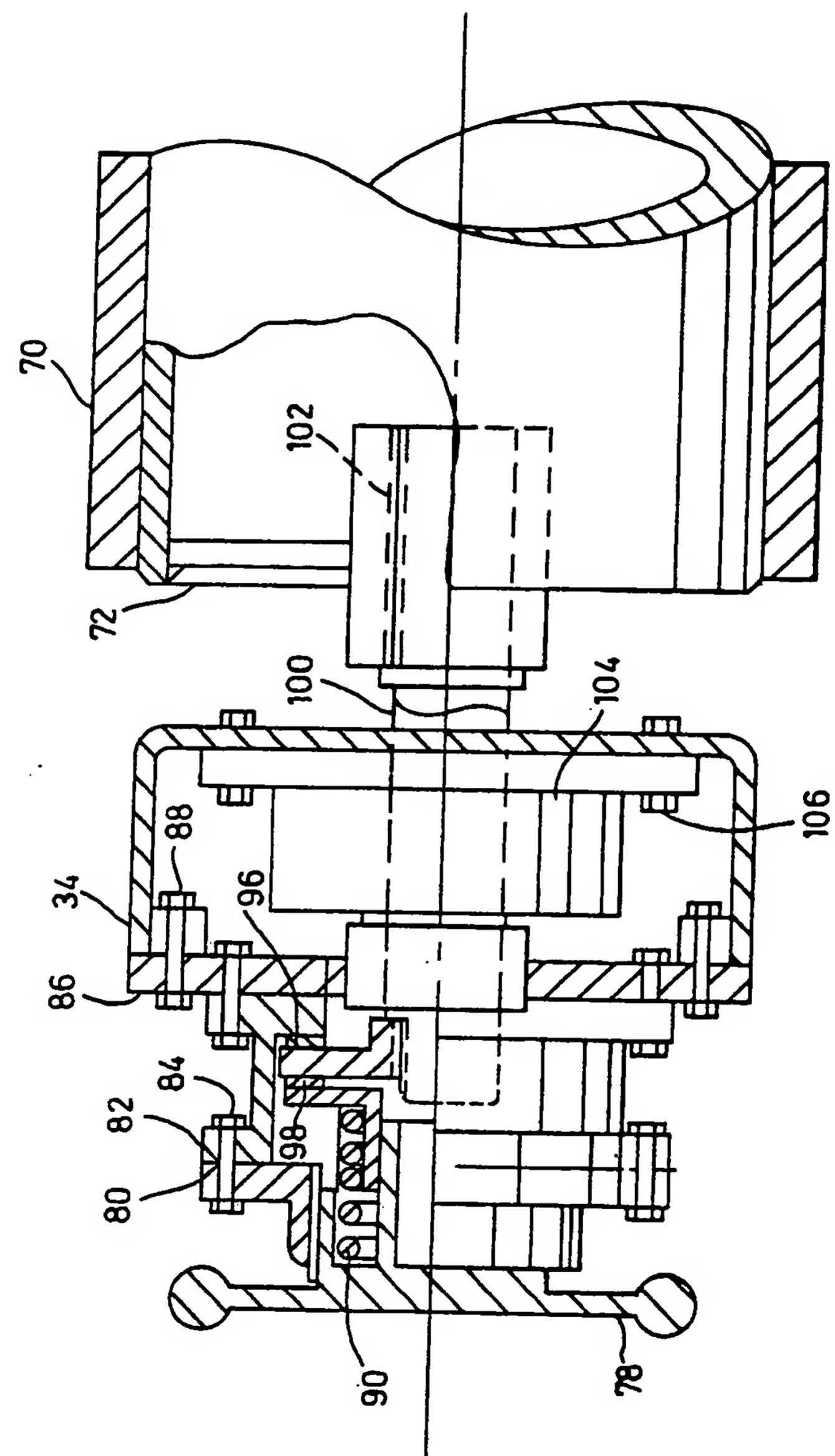


FIG. 4

SUBSTITUTE SHEET

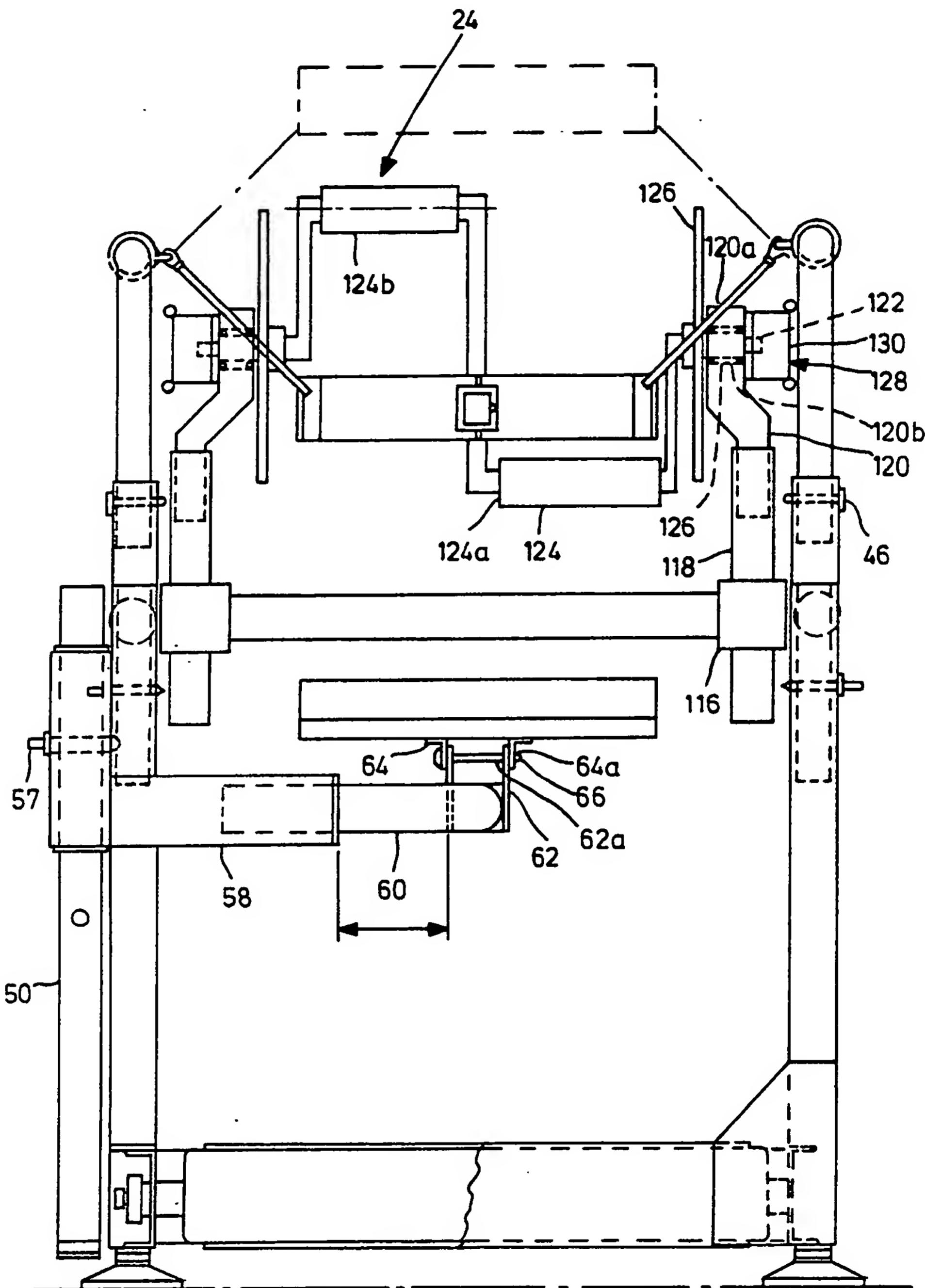
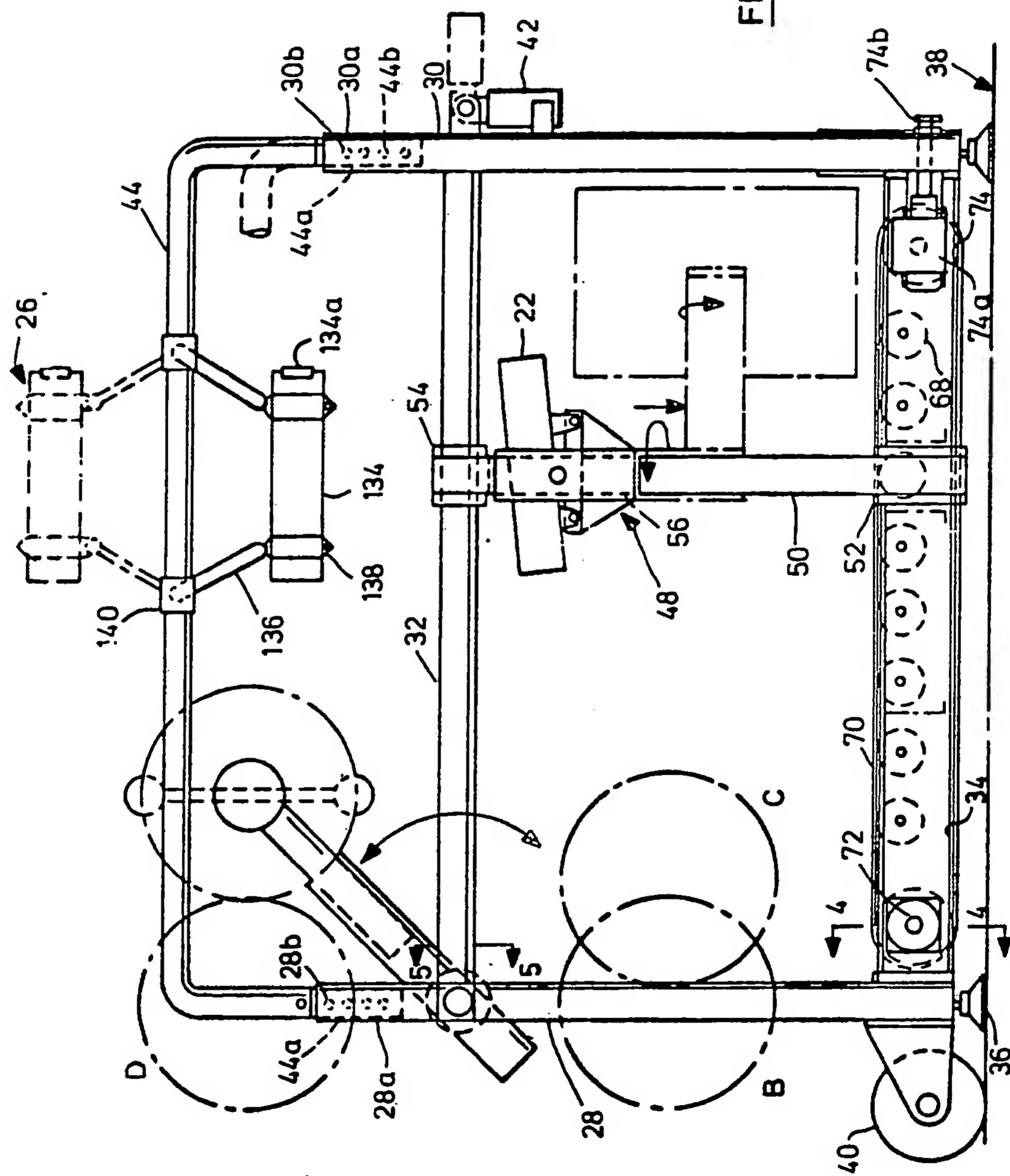


FIG. 3

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FIG. 2



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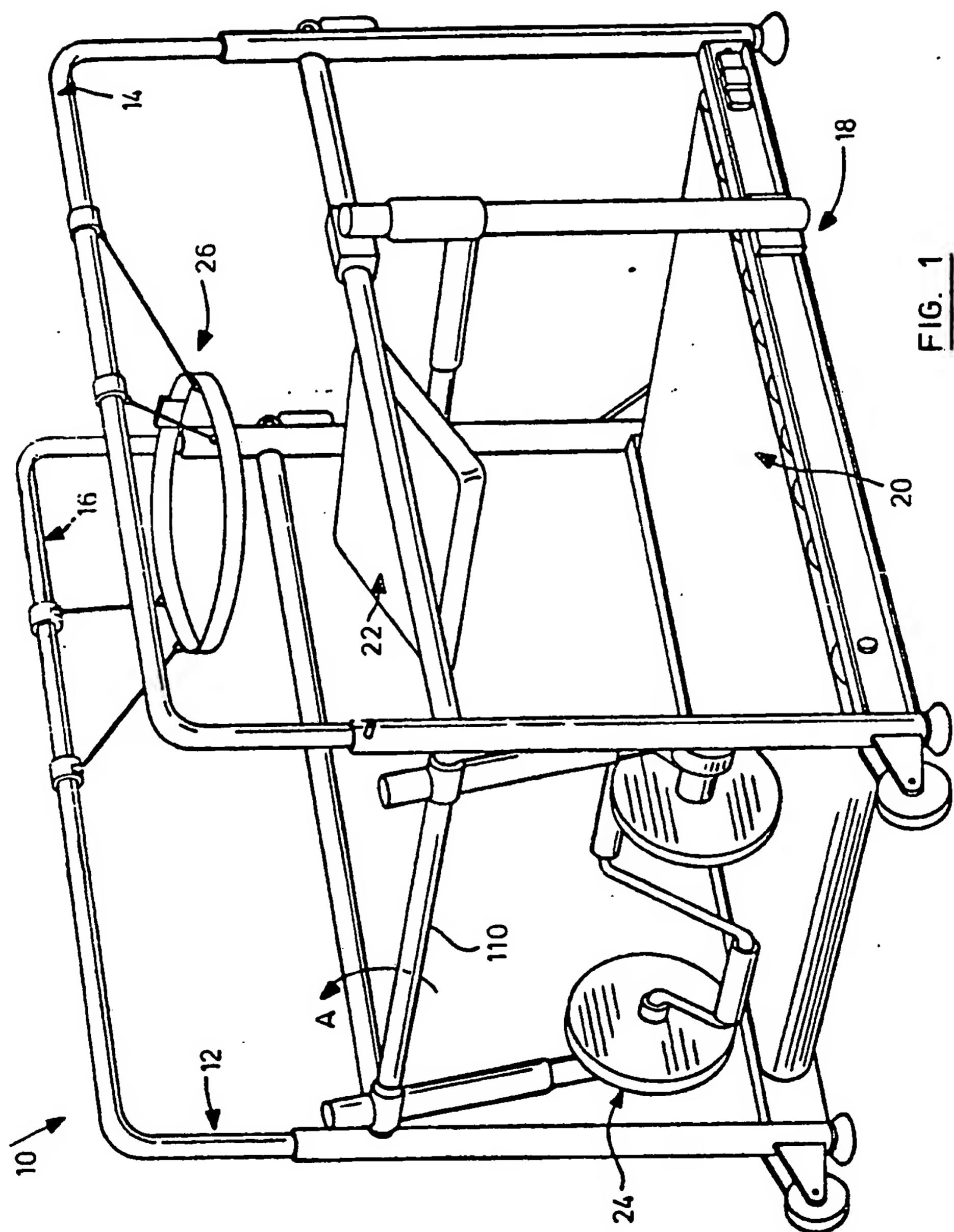


FIG. 1

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INTERNATIONAL SEARCH REPORT

International Application No PCT/US87/01734

I. CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all) ³

According to International Patent Classification (IPC) or to both National Classification and IPC

IPC(4): A63B 23/06

U.S. Cl: 272/69

II. FIELDS SEARCHED

Minimum Documentation Searched ⁴

Classification System	Classification Symbols
U.S.	272/69, 70, 73 128/25R

Documentation Searched other than Minimum Documentation
to the Extent that such Documents are Included in the Fields Searched ⁵

III. DOCUMENTS CONSIDERED TO BE RELEVANT ¹⁴

Category ⁶	Citation of Document, ¹⁵ with indication, where appropriate, of the relevant passages ¹⁷	Relevant to Claim No. ¹⁸
A	US,A, 4,026,545 (SCHONENBERGER) 31 MAY 1977 See col. 1, lines 59-62; col. 2, lines 55-63	
A	US,A, 4,204,673 (SPEER, SR.) 27 MAY 1980 See col. 2, lines 40-44, 55-68; col. 3, lines 1-8	
A	US,A, 2,399,915 (DRAKE) 07 MAY 1946 See col. 3, lines 40-53; col. 4, lines 19-28; col. 5, lines 48-55	1,15-19
A	US,A, 3,870,297 (ELDER) 11 MARCH 1975 See col. 5, lines 8-65	
Y	CAN,A, 672583 (PRIMEAU) 22 OCTOBER 1963 See page 5, lines 22-28, page 6, lines 1-6	1,7,15,16,19
Y	US,A, 2,826,192 (MANGAS) 11 MARCH 1958 See col. 2, lines 50-53, lines 58-66	1,18,19

* Special categories of cited documents: ¹⁶

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search ⁸

01 OCTOBER 1987

Date of Mailing of this International Search Report ⁹

20 OCT 1987

International Searching Authority ¹⁰

ISA/US

Signature of Authorized Officer ¹⁰

S.R. CROW

ARCrow